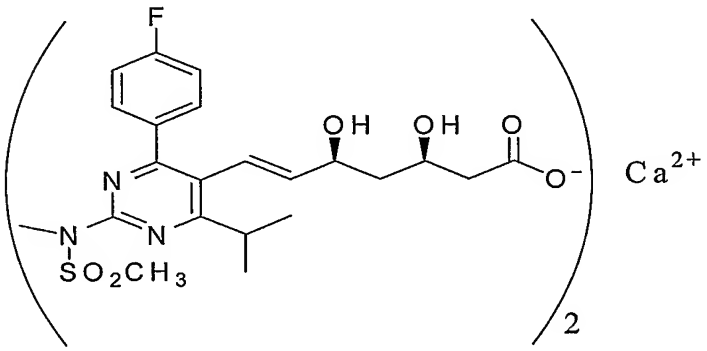
CLAIMS

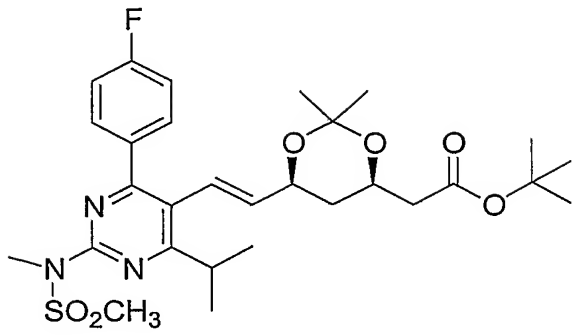
1. A method of preparation of the hemi-calcium salt of (*E*)-7-[4-(4-fluorophenyl)-6-isopropyl-2-[methyl(methylsulfonyl)amino]pyrimidin-5-yl](3*R*,5*S*)-3,5-dihydroxy-6-heptenoic acid of formula I, i.e. rosuvastatin



(I)

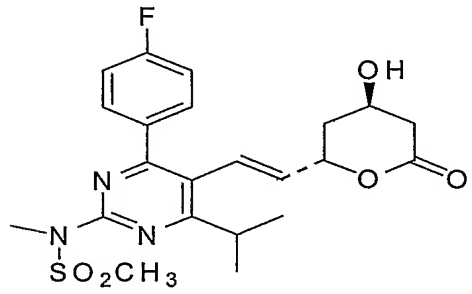
characterized in that an aqueous solution of the sodium or potassium salt of (*E*)-7-[4-(4-fluorophenyl)-6-isopropyl-2-[methyl(methylsulfonyl)amino]pyrimidin-5-yl](3*R*,5*S*)-3,5-dihydroxy-6-heptenoic acid, with optional admixture of sodium or potassium hydroxide or other sodium or potassium salts having inorganic anions, is extracted with an organic solvent, incompletely miscible with water, selected from the series of R^1COOR^2, R^1COR^2 and R^1OH, wherein R^1 and R^2 independently represent hydrogen or a residue of a C_1-C_{10} aliphatic hydrocarbon, C_6 aromatic hydrocarbon, C_5 or C_6 cyclic hydrocarbon, or a combination of an aliphatic and aromatic or cyclic hydrocarbon, the extract being subsequently shaken with an aqueous solution of an inorganic or C_1-C_5 organic calcium salt, and the product of formula I is further isolated by cooling and/or adding an anti-solvent and filtration, and, optionally, it is converted into its amorphous form.

2. The method according to claim 1 **characterized in** that the aqueous solution of the sodium or potassium salt of (*E*)-7-[4-(4-fluorophenyl)-6-isopropyl-2-[methyl-(methylsulfonyl)amino]pyrimidin-5-yl](3*R*,5*S*)-3,5-dihydroxy-6-heptenoic acid is obtained stepwise by acidic hydrolysis and subsequent alkaline hydrolysis of the protected ester of formula III



III

or by alkaline opening of the lactone of formula IV



(IV)

3. The method according to claim 1 **characterized in** that the extraction of the sodium or potassium salt from the aqueous solution is performed with an ester of formula R^1COOR^2, wherein R^1 and R^2 are as defined in claim 1.

4. The method according to claim 1 **characterized in** that the extraction is performed with ester $R^{1'}COOR^{2'}$, wherein $R^{1'}$ and $R^{2'}$ are independently hydrogen or a C_1-C_5 aliphatic residue, preferably with ethyl acetate.

5. A method of the preparation of the amorphous form of the hemi-calcium salt of (*E*)-7-[4-(4-fluorophenyl)-6-isopropyl-2-[methyl(methylsulfonyl)amino]pyrimidin-5-yl](3*R*,5*S*)-3,5-dihydroxy-6-heptenoic acid of formula I, i.e. rosuvastatin, according to claim 1, **characterized in** that a solution of the hemi-calcium salt of (*E*)-7-[4-(4-fluorophenyl)-6-isopropyl-2-[methyl(methylsulfonyl)amino]pyrimidin-5-yl](3*R*,5*S*)-3,5-dihydroxy-6-heptenoic acid in an organic solvent selected from the series of R^1COOR^2, R^1COR^2 and R^1OH, wherein R^1 and R^2 are as defined in claim 1, is added dropwise to a solvent in which

rosuvastatin is insoluble, selected from the series including compounds of formulae R^1H and R^1OR^2, wherein R^1 and R^2 are as defined in claim 1, and water.

6. The method according to claim 5 **characterized in** that the compound of formula I is dissolved in a solvent selected from the series of $R^{1'}COOR^{2'}$, $R^{1'}COR^{2'}$ and $R^{1'}OH$, wherein $R^{1'}$ and $R^{2'}$ are as defined in claim 4, is added dropwise to a solvent in which rosuvastatin is insoluble, selected from the series including compounds of formulae $R^{1'}H$ or $R^{1'}OR^{2'}$, wherein $R^{1'}$ and $R^{2'}$ are as defined in claim 4, and water.

7. The method according to claim 5 **characterized in** that the compound of formula I is dissolved in a solvent including ketones, particularly acetone, ethyl methyl ketone, isopropyl methyl ketone, alcohols, particularly methanol, ethanol, isopropanol, or butanols, further esters, particularly of formic acid, acetic acid or propionic acid with methyl, ethyl or propyl alcohol, and the product is precipitated with solvents including heptane, pentane, cyclohexane, toluene, petroleum ether, diethyl ether or water.